



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,246	02/15/2006	Nathalie Guennouni	022702-117	2907

21839 7590 10/27/2006

BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER

KATAKAM, SUDHAKAR

ART UNIT	PAPER NUMBER
----------	--------------

1621

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/534,246

Applicant(s)

GUENNOUNI ET AL.

Examiner

Sudhakar Kalakam

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tonomura et al (US 6,359,161) and Dessau (US 4,272,288).

Instant claims are drawn to a process of preparation of a haloalkylchlorosilane of formula (I), represented by $\text{Hal}-(\text{R}^2\text{R}^3)\text{Si}-(\text{CH}_2)_s\text{-Hal}$, by the hydrosilylation reaction of a reaction medium comprising a silane of formula (II), represented by $\text{Hal}-(\text{R}^2\text{R}^3)\text{Si-H}$, and an alkenyl halide of formula (III), represented by $\text{CH}_2=\text{CH}-(\text{CH}_2)_{s-2}\text{Hal}$, in presence of a catalytically effective amount of a hydrosilylation catalyst based on platinum ore metal. Instant applicants used, specifically iridium based catalyst, which is represented by the general formula $[\text{Ir}(\text{R}^4)\text{Hal}]_2$ and its one of the specific example can be represented by di- μ -chloro-bis(η -1,5-hexadiene)diiridium. Product is separated from

Art Unit: 1621

reaction medium by distillation and a liquid distillation residue comprising the catalyst remains. It is this distillation residue, which is treated using an absorbent to recover platinum ore metal from the catalyst. The adsorbent is a carbon black, a molecular sieve, a silica, an activated alumina or an ion exchange resin.

Tonomura et al teaches a process for preparing a halopropyldimethylchlorosilane of the formula, $XCH_2CH_2CH_2Si(CH_3)_2Cl$, where X is Cl, Br or I, by reacting dimethylchlorosilane with an allyl halide of the general formula represented by $XCH_2CH=CH_2$, in the presence of an iridium catalyst, which is represented by a general formula, $[Ir(R)Y]_2$, where Y is Cl, Br or I (col 1, lines 51-67, col 2, lines 47-65), for example, di- μ -chloro-bis(μ -1,5-hexadiene)diiridium. The compound is separated by a distillation of the reaction medium (col 4, lines 11-14).

The difference between the instant invention and Tonomura et al is that instant invention used the positional isomers of iridium complexes, which are disclosed by Tonomura et al. Other difference is that Tonomura et al silent on recovering platinum ore metal from the catalytic complex.

It would have been obvious to a person of ordinary skill in the art, at the time of present invention was made, that the two catalysts which positional isomer, would behave the same, hence have the same catalytic activity with a reasonable expectation of success using Tonomura et al teachings.

With regard to the recovery of metal from the catalyst, Dessau teach recovery of precious metals, for example platinum and palladium via their soluble amine complexes

from solutions by sorbing said complexes in one or more members of a novel class of zeolites (col 2, lines 16-25).

In view of explicit teachings of Tonomura et al and Dessau, the examiner purports that it would have been obvious to a person of ordinary skill in the art to recover the metal catalyst using an adsorbent, such as zeolite as suggested by Dessau in order to separate catalyst from desired product or to recycle the metal for more efficient process.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sudhakar Katakam whose telephone number is 571-272-9929. The examiner can normally be reached on M-F 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Application/Control Number: 10/534,246

Page 5

Art Unit: 1621

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SK

Sikarl A. Witherspoon

SIKARL A. WITHERSPOON
PRIMARY EXAMINER